
Subject: Re: regarding scope of variables

Posted by [David Fanning](#) on Sat, 26 Nov 2005 04:42:33 GMT

[View Forum Message](#) <> [Reply to Message](#)

IDLmastertobe writes:

```
> Hi, I have an array of data and I am trying to keep a copy of it so that i
> can restore the original data after certain operations. however I found
> everytime it reiterates the function, the variable that keeps the copy
> would go out of scope and my copy is gone. following is part of my code:
>
> if(size(ydata, /n_dimensions) eq 3) then begin
>   if(!firsty eq 1) then begin
>     yarr = ydata
>     !firsty=0
>   endif
>   ydata = smooth(yarr, [1, !smo, !smo])
>   oyimage->SetProperty, data = ydata
> endif
>
> however, the second time when this code is called, the yarr variable
> becomes undefined since it goes out of scope. What it copied in the first
> time is gone. Since I have no information on the size of the array i'm
> copying, i cannot preset an array as system variable to run. Does anyone
> have any idea?
```

I have a hunch "variable scope" is not your real problem here.

I already see two more system variables in these few lines of code than I've ever used in an IDL procedure. :-)

Is the real problem that you can't figure out how to pass around data in a widget program? Have you thought about using pointers?

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: regarding scope of variables

Posted by [IDLmastertobe](#) on Sat, 26 Nov 2005 09:19:25 GMT

[View Forum Message](#) <> [Reply to Message](#)

Thanks Dr.Fanning. I never used pointers IDL. It looks like the variable

"yarr" only exists in this one procedure and as soon as the procedure is called again, "yarr" is no longer defined if !firsty is not 1. Is there a way to declare a global dynamic variable that can preserve value when the procedure is called multiple times and the size of the variable can vary depending on the array we are copying? such as Vector function in C++ and JAVA. Thank you.

Subject: Re: regarding scope of variables

Posted by [David Fanning](#) on Sat, 26 Nov 2005 14:51:34 GMT

[View Forum Message](#) <> [Reply to Message](#)

IDLmastertobe writes:

> Thanks Dr.Fanning. I never used pointers IDL. It looks like the variable
> "yarr" only exists in this one procedure and as soon as the procedure is
> called again, "yarr" is no longer defined if !firsty is not 1. Is there a
> way to declare a global dynamic variable that can preserve value when the
> procedure is called multiple times and the size of the variable can vary
> depending on the array we are copying? such as Vector function in C++ and
> JAVA.

I think you are looking for a pointer. :-)

You might like to read the pointer tutorial:

http://www.dfanning.com/misc_tips/pointers.html

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: regarding scope of variables

Posted by [R.Bauer](#) on Sun, 27 Nov 2005 09:09:28 GMT

[View Forum Message](#) <> [Reply to Message](#)

IDLmastertobe wrote:

> Thanks Dr.Fanning. I never used pointers IDL. It looks like the variable
> "yarr" only exists in this one procedure and as soon as the procedure is
> called again, "yarr" is no longer defined if !firsty is not 1. Is there a

- > way to declare a global dynamic variable that can preserve value when the
- > procedure is called multiple times and the size of the variable can vary
- > depending on the array we are copying? such as Vector function in C++ and
- > JAVA. Thank you.

Follow Davids advice

cheers

Reimar
